

Denny E. Frost
DEPUTY OIL & GAS INSPECTOR

AUG 09 1999

Jicarilla Apache Tribe
Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528



RECEIVED
JUN 24 1999
OIL CON. DIV.
DIST. 3

Pit Remediation and Closure Report

| | | | | | | | |
|--|--|-------------|------------------------------------|-------------|----------------------|--------|------------|
| Operator: | Taurus Exploration U.S.A., Inc | | | Telephone: | (505) 325-6800 | | |
| Address: | 2198 Bloomfield Hwy, Farmington, NM 87401 | | | | | | |
| Facility or Well Name: | Jicarilla 123 C - 22 | | | | | | |
| Location: | Unit or Qtr/QTR | | | Sec "H" | Sec 5, T 25 N, R 4 W | County | Rio Arriba |
| Pit Type: | Separator: | Dehydrator: | Other: X - Abandoned Separator Pit | | | | |
| Land Type: | Range | | | | | | |
| Pit Location: | Pit dimensions: length: 20 ft width: 20 ft depth: 2.5 ft | | | | | | |
| (Attach Diagram) | | | | | | | |
| Reference: | wellhead: X | | | other: | | | |
| Footage from reference: | 15 feet | | | | | | |
| Direction from reference: | 60 | Degrees | X | East | North | | |
| | | | | West | South | X | |
| Depth To Groundwater: | Less than 50 feet | | | (20 points) | | | |
| (Vertical distance from | 50 feet to 99 feet | | | (10 points) | | | |
| contaminants to seasonal | Greater than 100 feet | | | (0 points) | | 0 | |
| high water elevations of | | | | | | | |
| groundwater) | | | | | | | |
| Distance to an Ephemeral Stream: | Less than 100 feet | | | (10 points) | | | |
| (Downgradient dry wash greater than | Greater than 100 feet | | | (0 points) | | 0 | |
| ten feet in width) | | | | | | | |
| Distance to Nearest Lake, Playa, or Watering | Less than 100 feet | | | (10 points) | | | |
| Pond: (Downgradient lakes, playas, and | Greater Than 100 feet | | | (0 points) | | 0 | |
| livestock or wildlife watering ponds) | | | | | | | |
| Wellhead Protection Area: | Yes | | | (20 points) | | | |
| (Less than 200 feet from a private | No | | | (0 points) | | 0 | |
| domestic water source, or less than | | | | | | | |
| 1000 feet from all other water sources) | | | | | | | |
| Distance To Surface Water: | Less than 100 feet | | | (20 points) | | | |
| (Horizontal distance to perennial | 100 feet to 1000 feet | | | (10 points) | | | |
| lakes, ponds, rivers, streams, creeks, | Greater than 1000 feet | | | (0 points) | | 0 | |
| irrigation canals and ditches.) | | | | | | | |
| RANKING SCORE (TOTAL SCORE): | | | | | | | 0 |

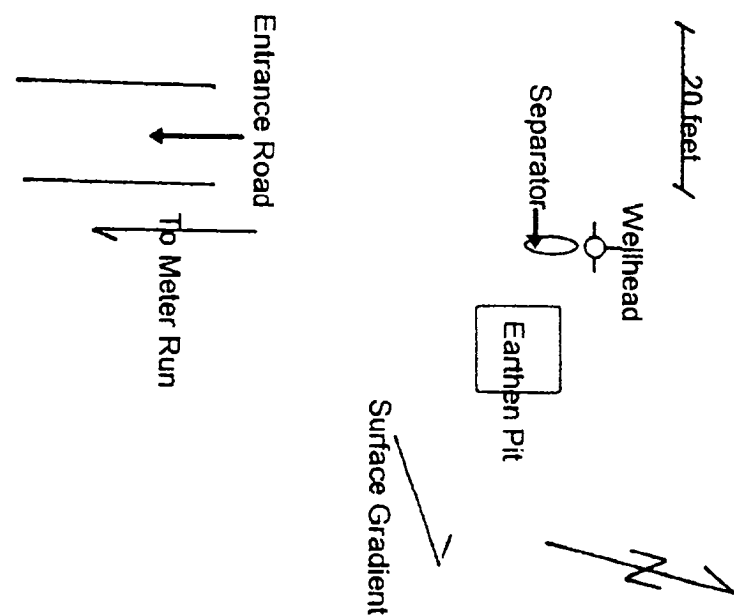
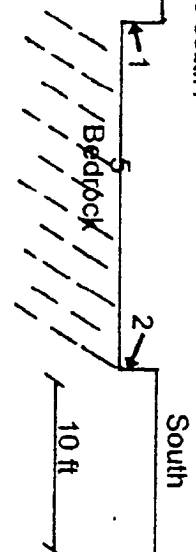
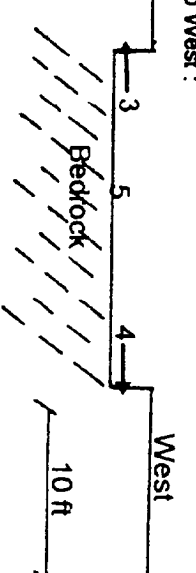
Jicarilla Apache Tribe
Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528

Pit Remediation and Closure Report

| | | | |
|---|--|---|------------------------------|
| Date Remediation Started: <u>7/22/98</u> | | Date Completed: <u>7/24/98</u> | |
| Remediation Method: (Check all appropriate sections) | Excavation: | <u>X</u> | Approx. cubic yds: <u>19</u> |
| | Landfarmed: | <u>X</u> | Insitu Bioremediation: |
| | Other: | | |
| Remediation Location: | On-site: | <u>X</u> | Off-site: |
| (I.e. landfarmed on site, name and location of off site location) | | | |
| General Description of Remedial Action: | | <u>Soil was excavated and landfarmed on location.</u> | |
| Groundwater Encountered: No: <u>X</u> Yes: _____ Depth: _____ | | | |
| Final Pit Closure Sampling: (If multiple samples, attach sample results and diagram of sample locations and depths.) | Sample location: <u>Pit bottom @ 2.5 feet below surface (Bedrock). Pit walls were analyzed for Headspace (see attachment).</u> | | |
| | Sample depth: | <u>2.5 feet (Bedrock)</u> | |
| | Sample date: | <u>7/24/98</u> | Sample time: <u>1122</u> |
| Sample Results: | | | |
| <u>Soil:</u> | | <u>Water:</u> | |
| Benzene (ppm) | _____ | Benzene (ppb) | _____ |
| Total BTEX (ppm) | _____ | Toluene (ppb) | _____ |
| Field Headspace (ppm) | <u>78.6</u> | Ethylbenzene (ppb) | _____ |
| TPH (ppm) | <u>20</u> | Total Xylenes (ppb) | _____ |
| Groundwater Sample: (If yes, attach sample results.) | Yes: _____ | No: <u>X</u> | |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF | | | |
| DATE: <u>8/26/98</u> | | Frank McDonald | |
| SIGNATURE:  | | AND TITLE: <u>Env. Division Manager</u> | |
| AFTER REVIEW OF THE PIT CLOSURE INFORMATION PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE | | | |
| APPROVED: Yes: <u>X</u> No: _____ (Reason) | | | |
| SIGNED:  | | DATE: <u>9-2-98</u> | |

Client : Taurus Exploration U.S.A. Inc.

Date Started : July 22, 1998 Date Completed : July 24, 1998

| | | | | |
|--|-----------------------|--|-----------------|------------|
| Location : Jicantla 123 C # 22 | | Overview of Location and Sampling : | | |
| Quad : H | Section : 5 |  | | |
| Range : 4 W | Township: 25 N | | | |
| Pit : Abandoned Separator Pit | | | | |
| Reference : 15° S 80° E | | | | |
| Initial Size : 10' x 10' x 1' deep | | Sample # | Location | OVM |
| Final Size : 20' X 20' X 2.5' deep | | 1 | N Wall @ 2' | 0.1 |
| Yds. Excavated : 19 cy | | 2 | S Wall @ 2' | 7.8 |
| Depth to Groundwater: | | 3 | E Wall @ 2' | 8.1 |
| Nearest Water Source: | | 4 | W. Wall @ 2' | 11.4 |
| Nearest Surface Water: | | 5 | C. Btm @ 2.5' | 78.6 |
| Nearest Ephemeral Stream: >1000' | | 6 | | |
| EPO Ranking Score: | | 7 | | |
| TPH Closure Standard: | | 8 | | |
| | | 9 | | |
| | | 10 | | |
| | | 11 | | |
| | | 12 | | |
| Comments : Top soil - 2.5' Soil is moist, sandy/loam, with a slight hydrocarbon odor, and slight gray staining. 2.5' Bedrock encountered. A sample from the center bottom at 2.5' was sent to IML for GRO/DRO analysis. | | | | |
| Pit Profile : North to South : | | Pit Profile : East to West : | | |
|  | |  | | |

Environmental Specialist : VC

Cimarron Oilfield Services

GASOLINE RANGE ORGANICS - GRO

Taurus Exploration U.S.A., Inc.

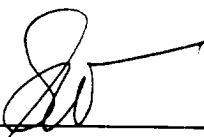
| | | | |
|----------------|-----------------------------|----------------|----------|
| Project ID: | Jicarilla 123C #22 Sep. Pit | Report Date: | 07/31/98 |
| Sample ID: | C Bottom @ 2.5' | Date Sampled: | 07/24/98 |
| Lab ID: | 0398G04194 | Date Received: | 07/27/98 |
| Sample Matrix: | Soil | Date Analyzed: | 07/29/98 |
| Condition: | Cool/Intact | | |

| TPH GAS-RANGE (MOD EPA 8015) | RESULT | DETECTION LIMIT |
|---------------------------------------|--------|-----------------|
| Gasoline-Range Petroleum Hydrocarbons | 7.0 | 5.0 mg/kg |
| Total Volatile Petroleum Hydrocarbons | 10.5 | 5.0 mg/kg |

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:


Reported By:


Reviewed By:

DIESEL RANGE ORGANICS - DRO

Taurus Exploration U.S.A., Inc.

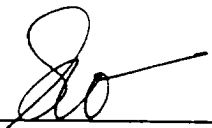
| | | | |
|----------------|------------------------------|----------------|----------|
| Project ID: | Jicarilla 123 C #22 Sep. Pit | Report Date: | 07/31/98 |
| Sample ID: | C. Bottom @ 2.5' | Date Sampled: | 07/24/98 |
| Lab ID: | 0398G04194 | Date Received: | 07/27/98 |
| Sample Matrix: | Soil | Date Analyzed: | 07/29/98 |
| Condition: | Cool/Intact | | |

| TPH DIESEL-RANGE (MOD EPA 8015) | RESULT | DETECTION LIMIT |
|-------------------------------------|--------|-----------------|
| Diesel-Range Petroleum Hydrocarbons | 13 | 5.0 mg/kg |

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:


Reported By:


Reviewed By:



CHAIN OF CUSTODY RECORD

| Client/Project Name | | Project Location | | ANALYSES / PARAMETERS | | | | | | | |
|--|---------|---------------------------|------------|-------------------------------------|-------------------|--|--|--|--|--|--|
| Taurus Exploration (HSA) Inc | | Sierra, 123 CH22 R.P. | | | | | | | | | |
| Sampler: (Signature) <i>[Signature]</i> | | Chain of Custody Tape No. | | | | | | | | | |
| Sample No./ Identification | Date | Time | Lab Number | Matrix | No. of Containers | | | | | | |
| J.C. 123 CH22 R.P. 8251 | 7/24/98 | 11:22 | | Soil | 1 | | | | | | |
| <div>Remarks</div> <p><i>See Lab. 1</i></p> <p><i>Hand. NO. 1.</i></p> | | | | | | | | | | | |
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| | | | | | | | | | | | |
| Relinquished by: (Signature) <i>[Signature]</i> | | Date | Time | Received by: (Signature) | | | | | | | |
| Relinquished by: (Signature) <i>[Signature]</i> | | Date | Time | Received by: (Signature) | | | | | | | |
| Relinquished by: (Signature) | | Date | Time | Received by Laboratory: (Signature) | | | | | | | |

Inter-Mountain Laboratories, Inc.

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54254

**JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528**

ON-SITE SOIL REMEDIATION REPORT

Operator: Taurus Exploration USA Inc. Telephone: (505) 325 - 6800

Address: 2198 Bloomfield Hwy, Farmington N.M. 87401

Facility or Well Name: Jicarilla 123 C 22

Location: Unit or Qtr/Qtr Sec H Sec 5 T 25 N R 4 W County Rio Arriba

Land Type: Range

Date Remediation Started: 7/22/98 Date Completed: 12/14/98

Remediation Method: Landfarmed X Approx. cubic yards 19

Composted

Other

Depth to Groundwater: (pts) 0

Distance to an Ephemeral
Stream (pts) 0

Distance to Nearest Lake,
Playa, or Watering Pond (pts) 0

Wellhead Protection Area (pts) 0

Distance to Surface Water (pts) 0

RANKING SCORE

(TOTAL POINTS): 0

Final Closure Sampling:

Sampling Date: 12/14/98 Time: 13:50

Sample Results:

Field Headspace (ppm) .7

TPH (ppm) <10 Method 8015

Other:

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE: 1/7/99 PRINTED NAME VIRGIL CHAVEZ

SIGNATURE [Signature] AND TITLE ENV. SPECIALIST

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE SOIL REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO (REASON)

SIGNED: [Signature] DATE: 1-20-99 KCM

Client : Taurus Exploration USA Inc.

Date Started : July 22, 1998 Date Completed : December 14, 1998

| Location : Jicarilla 123 C 22 | | | Overview of Landfarm and Sampling : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------|---|---|----------|-----|---|--------|-----|---|--|--|---|--|--|---|--|--|---|--|--|---|--|--|---|--|--|---|--|--|---|--|--|----|--|--|----|--|--|----|--|--|--|--|--|
| Quad : H Section : 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Township: 25 N Range: 4 W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pit : | Separator | <table border="1"><thead><tr><th>Sample #</th><th>Location</th><th>OVM</th></tr></thead><tbody><tr><td>1</td><td>Comp 1</td><td>0.7</td></tr><tr><td>2</td><td></td><td></td></tr><tr><td>3</td><td></td><td></td></tr><tr><td>4</td><td></td><td></td></tr><tr><td>5</td><td></td><td></td></tr><tr><td>6</td><td></td><td></td></tr><tr><td>7</td><td></td><td></td></tr><tr><td>8</td><td></td><td></td></tr><tr><td>9</td><td></td><td></td></tr><tr><td>10</td><td></td><td></td></tr><tr><td>11</td><td></td><td></td></tr><tr><td>12</td><td></td><td></td></tr></tbody></table> | Sample # | Location | OVM | 1 | Comp 1 | 0.7 | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 | | | 9 | | | 10 | | | 11 | | | 12 | | | | | |
| Sample # | Location | OVM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Comp 1 | 0.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reference 80' S 45 W from wellhead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Size : 25' x 25' x 1' deep | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yds : 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 5 - Point Composites | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comments : Soil is moist, brown, sandy/loam with no visible staining or detectable hydrocarbon odor. | | | <p>The diagram shows a wellhead (circle) and a separator (rectangle) with a pit (square) next to it. A north arrow points towards the top right. A surface gradient arrow points towards the bottom right. A small grid of numbers (1, 1, 1, 1, 1) is shown. Labels include 'well head', 'separator', 'Pit', 'North', 'Surface Gradient', and 'Entrance'.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A sample from composite # 1 was sent to IML for GRO/DRO analysis. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Environmental Specialist : VC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Ranking Score : 0 Closure Standard : 5000 ppm

Cimarron Oilfield Services



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

GASOLINE RANGE ORGANICS - GRO

ENERGEN RESOURCES


| | | | |
|----------------|-------------------|----------------|-----------|
| Project ID: | Jicarilla 123 C22 | Report Date: | 12/31/98 |
| Sample ID: | Comp #1 | Date Sampled: | 12/14/98 |
| Lab ID: | 0398G07316 | Date Received: | 12/15/98 |
| Sample Matrix: | Soil | Date Analyzed: | 12/30/98* |
| Condition: | Cool/Intact | | |

| TPH GAS-RANGE (MOD EPA 8015) | RESULT | DETECTION LIMIT |
|---------------------------------------|--------|-----------------|
| Gasoline-Range Petroleum Hydrocarbons | <5.0 | 5.0 mg/Kg |

ND - Analyte not detected at the stated detection limit.

Reference:

Comments: *Sample was analyzed within the holding times, however, due to instrument problems and QC failure, the sample had to be re-analyzed to verify results.


Reported By:


Reviewed By:



DIESEL RANGE ORGANICS - DRO

ENERGEN RESOURCES


| | | | |
|----------------|-------------------|----------------|----------|
| Project ID: | Jicarilla 123 C22 | Report Date: | 12/31/98 |
| Sample ID: | Comp #1 | Date Sampled: | 12/14/98 |
| Lab ID: | 0398G07316 | Date Received: | 12/15/98 |
| Sample Matrix: | Soil | Date Analyzed: | 12/30/98 |
| Condition: | Cool/Intact | | |

| TPH DIESEL RANGE (MOD EPA 8015) | RESULT | DETECTION LIMIT |
|-------------------------------------|--------|-----------------|
| Diesel-Range Petroleum Hydrocarbons | <5.0 | 5.0 mg/Kg |

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:


Reported By:


Reviewed By:



Inter-Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

| Client/Project Name | | Project Location | | ANALYSES / PARAMETERS | | | | | | | |
|---------------------------------------|----------|---------------------------|------------|-------------------------------------|-------------------|--|--|--|--|--|--|
| Sample 123022 | | Sample 123022 | | | | | | | | | |
| Sampler: (Signature) | | Chain of Custody Tape No. | | Remarks | | | | | | | |
| Sample No./ Identification | Date | Time | Lab Number | Matrix | No. of Containers | | | | | | |
| 123022 | 12/14/98 | 1350 | | Soil | 1 | | | | | | |
| <div>RECEIVED ANALYST HAND DEL.</div> | | | | | | | | | | | |
| | | | | | | | | | | | |
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| Relinquished by: (Signature) | | Date | Time | Received by: (Signature) | | | | | | | |
| | | 12/14/98 | 1325 | | | | | | | | |
| Relinquished by: (Signature) | | Date | Time | Received by: (Signature) | | | | | | | |
| | | | | | | | | | | | |
| Relinquished by: (Signature) | | Date | Time | Received by Laboratory: (Signature) | | | | | | | |
| | | | | 12/14/98 | | | | | | | |

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